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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/823,083

04/13/2004

Nava Ariel

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7590

04/21/2008

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EXAMINER

HODGE, ROBERT W

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

04/21/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/823,083	<b>Applicant(s)</b> ARIEL ET AL.	
	<b>Examiner</b> ROBERT HODGE	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-39 and 41-57 is/are pending in the application.
- 4a) Of the above claim(s) 8-10, 15, 18-27, 35-37, 42 and 45-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11, 12, 14, 16, 17, 28-34, 38, 39, 41, 43, 44 and 57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 2/7/08 have been fully considered but they are not persuasive. Applicants state that Jenson does not teach a plurality of stacked thin film layers are formed on a substrate or that said substrate is at least a portion of the solid state battery. This is not found persuasive since it is quite clear from Figures 1B-1D that the thin film layers are in fact formed on a substrate 55 and in Figures 15A-L & 16A-D that the substrate in which the thin film layers are formed on is in fact used as part of the completed solid state battery. It is also submitted that any of the layers themselves broadly construed can be considered a "substrate" and by said interpretation the anode 63 in Figure 1D of Jenson can read on the claims as recited, especially since multiple thin layers are formed on top of the anode. An anode is part of the battery which reads on the claims as recited. Applicants further submit that the secondary reference to Ladyansky does not make up for the deficiency of Jenson, however as clarified above Jenson does not have the alleged deficiency and the prior art rejections will be maintained.

The Examiner acknowledges that claims 13 and 40 have been canceled and the subsequent limitations added to amended claims 1 and 28.

### ***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 28-34, 41, 43, 44 and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pre-Grant Publication No. 2002/0001747 hereinafter Jenson.

Jenson teaches a solid state battery comprising a plurality of stacked thin film layers, wherein the solid state battery is at least partially integrated within the stacked thin film layers, wherein the layers include at least an anode and cathode layer, which comprises silicon, with an electrolyte layer there between that is less than about 100 nm and also less than about 10 nm, the electrolyte layer comprises silicon dioxide which is substantially free of lithium, wherein the stacked layers are formed on a substrate which can be the anode, wherein the battery is integrated with an integrated circuit and further comprises a contact layer (see figures 22-24 and 26, and paragraphs [0245]-[0253], [0269], [0337], [0338] and [0344]-[0353]).

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-7, 11, 12, 14, 16, 17, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenson.

Jenson as discussed above is incorporated herein.

Jenson does not teach the overall thickness of the battery or the separate thicknesses of the anode and cathode layer. However Jenson does disclose that the purpose of the battery is to make it is thin as possible because of the intended application being integrated onto an integrated circuit and optimizing the thickness of

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the electrolyte layer to be as thin as 10 angstroms as well as an anode current collector having a thickness of 0.5 microns (see citations above and paragraph [0171]).

At the time of the invention it would have been obvious to one having ordinary skill in the art that the overall size of the battery of Jenson would be extremely small and would overlap the size of the instantly claimed invention especially due to the nature of how thin the electrolyte layer is and the disclosed thickness of the anode current collector. See *In re Rose* 105 USPQ 237 (CCPA 1955).

Claims 1-7, 11, 12, 14, 16, 17, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenson in view of U.S. Patent No. 6,758,404 hereinafter Ladyansky.

Jenson as discussed above is incorporated herein.

Ladyansky teaches that in thin film batteries the anode film layer can range from 0.01-1  $\mu\text{m}$  and that it is ideal to optimize the thickness of the thin film layers to optimize the performance characteristics of the battery (column 7, lines 1-10 and column 8, line 64 – column 9, line 5).

At the time of the invention it would have been obvious one having ordinary skill in the art to include very thin electrode layers in Jenson as taught by Ladyansky in order to provide a thin film battery with optimized performance characteristics respective to the size and application of the battery. See also *In re Rose* 105 USPQ 237 (CCPA 1955).

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT HODGE whose telephone number is (571)272-2097. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. H./  
Examiner, Art Unit 1795

/Jonathan Crepeau/  
Primary Examiner, Art Unit 1795